Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
Developing an Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	

REPLY COMMENTS OF BANDWIDTH INC.

Bandwidth Inc., on behalf of its wholly-owned subsidiary Bandwidth.com CLEC, LLC (together, "Bandwidth"), submits these replies to the comments on the Federal Communications Commission's ("FCC's") Public Notice[1] requesting that parties refresh the record on intercarrier compensation reform related to the network edge, tandem switching and transport, and transit. Bandwidth supports intercarrier compensation reform that is technologically and carrier neutral and provides necessary and proper incentives for carriers to actually transition to mutually agreeable IP interconnection together with bill and keep that ensures call completion. Bandwidth urges the Commission to adopt reforms that are easy to administer and enforce. The FCC, not carriers engaging in self-help, should determine the transition period and default rules.

I. Proposals to designate the local calling area or end office as the network edge are likely to impede rather than advance the transition to IP interconnection.

Efficiencies of IP interconnection can be achieved only if FCC rules do not incent carriers to continue TDM interconnection. Although the FCC may decide the local exchange should be the network edge in special circumstances (such as Alaska), establishing the network edge in each local calling area or at each end office would be a step backward from the FCC's

[1] Parties Asked to Refresh the Record on Intercarrier Compensation Related to the Network Edge, Tandem Switching and Transport and Transit, 32 FCC Rcd. 6856 (2017) ("ICC Public Notice").

single point of interconnection ("POI") per Local Access and Transport Area ("LATA") rules. As Verizon explains, "some companies refuse to negotiate more efficient interconnection arrangements, such as direct connections or IP-based interconnections, because they do not want to lose tandem switching and transport revenues."[2] Such incentives will only worsen if the FCC defines the network edge to be the local exchange or end office.

Although the two largest ILECs have converted over half of their landline voice connections to IP (56.4% of Verizon's landline voice connections are FiOS customers, and 56.1% of AT&T's landline voice subscribers are U-verse customers),[3] both have yet to establish mutual IP interconnections with Bandwidth. Bandwidth agrees with NCTA that "while incumbent LECs state that they are very interested in transitioning to IP, many of them still require [competitive providers] to exchange a substantial portion of voice traffic through highly inefficient TDM-based arrangements."[4] In short, in order to spur IP interconnects Bandwidth and others should not have to march backwards and "spend millions of dollars every year converting IP-based voice traffic to TDM solely so that it can be exchanged with incumbent LECs."[5] As the Commission's proposal to advance nationwide number portability demonstrates, the geographically-based public switched telephone network ("PSTN"), is outdated but continues to be an obstacle to the IP Transition erected by those that run it. And T-Mobile is correct that requiring a TDM network edge in each LATA, let alone each end office or local exchange, "forces non-incumbent carriers ('non-ILECs') to (a) replicate an inefficient, outdated, and

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[2] Comments of Verizon, WC Docket No. 10-90, CC Docket No. 01-92, at 4 (filed Oct. 26, 2017 ("Verizon Comments").

[3] Comments of Sprint, WC Docket No. 10-90, CC Docket No. 01-92, at 3 (filed Oct. 26, 2017).

[4] Comments of NCTA – The Internet & Television Association, WC Docket No. 10-90, CC Docket No. 01-92, at 2 (filed Oct. 26, 2017).

[5] *Id.*

expensive network topography they do not want or need; and (b) route all traffic through the networks of [ILECs] or other third parties that otherwise have nothing to do with the call or transmission."[6]

Given the incumbent LECs' long-standing refusals to negotiate and maintain equitable IP interconnection arrangements, the FCC should not determine the Act's Section 251 and 252 obligations are inapplicable to IP interconnection. Without regulatory oversight that supports sound engineering principles like capacity planning and reasonable transition timeframes, there is a real danger that calls will not be completed. The obligation of all carriers to interconnect directly or indirectly, as established by Section 251(a)(1), must imply an obligation to deliver traffic either to a point at which the terminating carrier has stated it will accept such traffic, or to another carrier who is capable of delivering the traffic to such a point. Bandwidth has experienced just these sort of problems because of unilateral actions taken without prior notice. Bandwidth therefore supports T-Mobile's suggestion that

> the FCC should convene a Federal-State Joint Conference or Board to work with industry to designate one "Safe Harbor POI" per state or group of states in the location where (a) the maximum number of carriers are already interconnected and (b) there is sufficient capacity (or potential capacity) to accommodate interconnection by all other carriers in that state.[7]

The Commission should also consider adopting a backstop to resolve carrier disputes about the transition of current arrangements to IP interconnection. Unless and until the large incumbent LECs demonstrate an ability to reach mutually agreeable IP interconnection arrangements with carriers representing a wide spectrum of the industry (CLEC, cable, wireless),

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[6] Comments of T-Mobile USA, Inc., WC Docket No. 10-90, CC Docket No. 01-92, at i (filed Oct. 26, 2017) ("T-Mobile Comments").

[7] T-Mobile Comments at ii.

the FCC should not declare the Act's protections unnecessary or inapplicable to IP interconnection.

II. The record supports Bandwidth's request to limit abuse in excessive mileage and subject 8YY dip charges to the CLEC benchmark rule while confronting improper revenue sharing arrangements.

As Bandwidth and other parties argued in response to AT&T's forbearance petition, the Commission should target reform to address demonstrated concerns related to the impact excessive transport mileage and 8YY dip rates have on end user rates only if the record shows the offending practices are widespread.[8] Bandwidth is one of the nation's largest toll free service providers and together with its customers has been a victim of persistent fraudulent traffic pumping schemes for years. Bandwidth supports targeted efforts to stem and address fraud in the marketplace so long as the rules do not permit unsubstantiated and self-serving claims of "arbitrage" that result in nonpayment of tariffed and billed charges through self-help. FCC reforms ultimately should achieve effective IP interconnection. But until mutually agreed IP interconnection is achieved, FCC rules should not deny carriers the ability to rely on tariffs to recoup their costs. For example, Bandwidth believes the FCC should focus its transitional reform on abusive revenue sharing practices specifically and only forbear from tariffing for (1) 8YY dip charges above the current corresponding ILEC rate and (2) excessive transport miles. Current price cap tariffed access rates are presumed just and reasonable. The Commission's finding that

[8] Comments of Inteliquent, Inc., Bandwidth.com, Inc., Onvoy, LLC, WC Docket No. 16-363 at 2 (filed Dec. 2, 2016); Opposition of Omnitel Communications, Inc., WC Docket No. 13-363 at 9 (filed Dec. 2, 2016) (one isolated example "cannot justify the broad relief AT&T seeks."); CenturyLink Opposition/Comments To AT&T Petition for Forbearance, WC Docket No. 16-363 at 3-4 (filed Dec. 2, 2016) ("CenturyLink Comments") (clarifying that tandem provider rates are subject to the CLEC benchmark rule "will eliminate the excessive tandem and transport rates currently plaguing the industry.").

Iowa Network Services violated the Commission's rate cap and rate parity rules[9] shows that carriers can use the complaint process to have specific rates declared unjust and unreasonable. The FCC should not deny all carriers the ability to rely on tariffs to recoup from interexchange carriers the costs of 8YY database dips and originating 8YY access on the basis of a few LECs' unreasonable rates or practices. During the transition to IP interconnection, any allegation that a particular rate is not just and reasonable should be addressed through a tariff investigation or complaint process, not "self-help" and not select reforms that only benefit a few of the very largest.

Capping the 8YY dip charge at the current corresponding ILEC rate like other CLEC access rate elements, and placing a reasonable limit on the number of miles a tandem provider charges (such as the ten-mile cap suggested by Verizon)[10] would benefit CLECs, IXCs, and their respective customers. Private negotiations cannot ensure that LECs will be paid a just and reasonable rate by IXCs that have repeatedly engaged in self-help.[11]

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[9] *AT&T v Iowa Networks Services, Inc*., Proceeding No. 17-56, FCC 17-148, Memorandum Opinion and Order, ¶ 23 (rel. Nov. 8, 2017) ("*AT&T v Iowa*").

[10] Verizon Comments at 9.

[11] Consolidated Communications Companies and West Telecom Services, LLC's Motion For Summary Denial of and Opposition to AT&T's Petition; Motion For Summary Denial And Opposition To AT&T's Petition of Birch Communications, Inc. et al., WC Docket No. 16-363 at 22 ("Where IXCs have challenged the enforceability of specific switched access tariffs, they often aggressively dispute and, in many cases, engage in self-help by refusing to pay any amount for the switched access charges under dispute, requiring switched access providers to seek payment through collection actions."); *see also* Motion For Summary Denial And Opposition To AT&T's Petition of Birch Communications, Inc. et al., WC Docket No. 13-363 at 21 ("Even under the permissive tariffing regime, IXCs have sought to avoid payment altogether where the enforceability of a specific tariff is under dispute. To do so, IXCs dispute assessed tariffed switched access charges and engage in self-help by refusing to pay any amount for the services provided."); *see also* WTA Comments, at 6.

III. The Commission should make clear it sets default intercarrier compensation rules for traffic exchange, including over-the-top VoIP, which allows all carriers to exchange traffic on fair and equal footing.

Verizon's ongoing traffic exchange litigation with Bandwidth is instructive of the present realities absent firm and ongoing FCC involvement.[12] In the litigation, among other broad claims, Verizon contends that Bandwidth cannot impose tariffed ***end office*** switching charges for OTT VoIP traffic under federal law. Verizon has unilaterally engaged in "self-help" (that is, total non-payment) for the traffic it sends to Bandwidth. Yet Bandwidth continues to pay for traffic sent to Verizon. The net effect is a one-sided, asymmetric intercarrier compensation arrangement for OTT VoIP traffic exchanged between Verizon and Bandwidth.

Nevertheless, here before the FCC, Verizon argues that:

> an over-the-top VoIP provider or its CLEC partner can readily connect directly to a price cap LEC tandem, at which point bill-and- keep applies (as of July 1, 2018). In that case, the VoIP provider and its CLEC partner incur no per-minute charges to terminate traffic to the price cap LEC. By contrast, per-minute charges may apply to traffic terminated to a VoIP provider through its CLEC partner. VoIP providers and their CLEC partners sometimes insist that the sending carrier interconnect indirectly via a third-party tandem provider. In that case, ***even though CLEC end office rates are at bill-and-keep***, the sending carrier incurs per-minute charges for tandem switching (billed by the tandem provider) and may also incur per-minute per-mile charges for transport (billed by the CLEC). This asymmetric result in which one party pays per-minute charges to terminate a call and the other does not is inconsistent with a bill-and-keep regime.[13]

In court, Verizon asserts the opposite position and imposes an "asymmetric result," which it decries here. Verizon admits in the dispute with Bandwidth that it withheld approximately $26 million in charges Bandwidth legally billed pursuant to its federal and state switched access

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[12] *See, Bandwidth.com CLEC, LLC v MCI Communications Services, Inc.*, Case No. 14-MD-2587-D, N.D. Tex.

[13] Verizon Comments at 12. (emphasis added)

tariffs[14] on the basis that Bandwidth cannot impose tariffed ***end office*** switching charges for OTT VoIP traffic under federal law.[15] In other words, Verizon is arguing in court that Bandwidth is acting as a tandem switch when it routes traffic to a VoIP partner for termination, but is arguing in this proceeding that it is acting as an end office when it does the same thing. This "heads I win, tails you lose" Verizon position shows that (1) the FCC must set and enforce clear rules and (2) large incumbent LECs continue to use market power to disadvantage their competitors.

Because the Verizon means of achieving asymmetric bill-and-keep is not an isolated incident, the Commission should expect unilateral self-help to continue. These unilateral refusals to pay violate the filed rate doctrine and force smaller carriers to divert resources from communications networks and services to litigation. It is imperative that the Commission set clear, easy to administer rules and enforce them.

IV. Conclusion

Bandwidth supports further intercarrier compensation and carrier interconnection reforms that advance competition and innovation, including reforms that ultimately move the industry to mutually agreed IP interconnection together with bill and keep, while more immediately addressing excessive dip and mileage charges through established complaint procedures. Bandwidth is at the forefront of addressing fraud and abuse but unfortunately is also at the forefront of combating unsubstantiated self-help. The record shows that large incumbents choose to ignore the Commission's default intercarrier compensation rules when it suits them and have not made meaningful progress toward implementing mutually agreeable IP

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[14] *Bandwidth.com CLEC, LLC v MCI Communications Services, Inc.,* Case No. 14-MD-2587-D, N.D. Tex., Document 98, Verizon's Motion For Leave to File An Amended Answer and Counterclaims to Counterclaims Filed by Bandidth.com CLEC, LLC, ¶ 14 (filed 9/19/2017).

[15] *Id.* ¶ 12.

interconnection arrangements with carriers representing a wide spectrum of the industry (CLEC, cable, wireless). The Commission continues to have an important leadership role that should not be lightly forsaken. Bandwidth has not seen demonstrable evidence in the marketplace to support declarations that the Act's protections are entirely unnecessary or inapplicable to IP interconnection. Rather, the Commission must first insist upon fair dealing and direct carriers to use the complaint process, not self-help, to address actual incidents of unjust and unreasonable rates. The Commission can craft targeted relief to limit mileage-pumping abuses during the transition to further holistic reforms, but should not grant one-sided relief to those that already possess disproportionate market power. Beneficial intercarrier compensation and network edge reforms should be technology and carrier neutral, easy to administer and enforce, and include a clearly understood transition period for all market participants to adjust their interconnection facilities and business plans in a commercially reasonable manner.

Respectfully submitted,

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